## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## Listing of Claims:

1. (Currently Amended) An ATM (asynchronous switching mode) edge node switching equipment that is connected to plural user terminals in an ATM network, comprising:

an IP (Internet protocol) data packet distribution unit, which distributes ~~each of~~ IP data packets to each of said plural user terminals, by utilizing an IP-VPN (Internet protocol-virtual private network) unit; ~~using a destination IP address of each of said plural user terminals, wherein:~~

wherein said IP-VPN unit, ~~comprising:~~ comprises:

an inputted IP data packet analyzing section that obtains an input VC (virtual channel) number, and also obtains a VPN-ID (virtual private network-identifier) for distinguishing each of said user terminals, and a QOS (quality of service) type based on said input VC number and ~~set by~~ QOS information from a header part of an IP data packet transferred from one of said plural user terminals, said QOS information ~~composed of~~ including a protocol type, a destination service port number, a source address service port number, and a code point, ~~from a header part of said IP data packet transferred from one of said user terminals~~; and

a routing information retrieving section that retrieves ~~a routing of a~~ an output VC number of an output VC to which said IP data packet is transferred ~~for a destination address by using said~~ based on a destination IP address in said IP data packet, said VPN-ID, and said QOS type, ~~and sets said routing of said VC for said destination address~~.

2. (Currently Amended) The ATM edge node switching equipment ~~that is connected to plural user terminals in an ATM network~~ in accordance with claim 1, wherein:

a leased line between each of said plural user terminals and said ATM edge node switching equipment is at least one, and said leased line is a virtual private network of a layer 2 in an OSI (open system interconnection) referring model.

3. (Currently Amended)  The ATM edge node switching equipment ~~that is connected to plural user terminals in an ATM network~~ in accordance with claim 1, wherein:

      said inputted IP data packet analyzing section defines said QOS type as <u>at least</u> 3 types corresponding to discarding an illegal cell (IP data packet), tagging trouble, and transmission delayed time.


4. (Currently Amended)  An ATM edge node switching equipment that is connected to plural user terminals in an ATM network, and is connected to ~~one~~ <u>a</u> user terminal <u>of said plural user terminals</u> with at least one virtual leased line, comprising:

      an input VC (virtual channel) to which an IP data packet ~~having a VPN-ID~~ is inputted from ~~each of said plural user terminals~~ <u>said user terminal</u>;

      an inputted IP data packet analyzing section for analyzing a header part of said ~~inputted~~ IP data packet;

      a user information memory that stores ~~an input VC number,~~ a VPN-ID<u>, and</u> a QOS type ~~set by~~ <u>in association with an input VC number and</u> QOS information<u>, said QOS information</u> ~~composed of~~ <u>including</u> a protocol type, a destination service port number, a source address service port number, and a code point ~~being a differentiated service,~~ <u>said user information memory</u> ~~and that is~~ <u>being</u> used when said inputted IP data packet analyzing section analyzes said ~~inputted~~ IP data packet;

      a routing information retrieving section that retrieves and sets a routing of said IP data packet for ~~said~~ <u>a</u> destination address based on an analyzed result ~~at~~ <u>from</u> said inputted IP data packet analyzing section; and

      a routing information memory that stores ~~a destination IP address,~~ plural output VCs<u>, and</u> an output VC state showing the state of said plural <u>output</u> VCs<u>, in association with a destination IP address,</u> said QOS type, and said VPN-ID, and that is used when said routing information retrieving section retrieves and sets said routing<u>;</u> ~~, wherein:~~

      <u>wherein</u> said IP data packet is transferred to said destination address in said ATM network by changing said header part of said IP data packet.

5. (Currently Amended) The ATM edge node switching equipment ~~that is connected to plural user terminals in an ATM network, and is connected to one user terminal with at least one virtual leased line,~~ in accordance with claim 4, further comprising:

a VC control unit that always monitors a state of said plural output VCs and notifies said state having trouble or not to said routing information retrieving section when said routing information retrieving section retrieves and sets said routing;

a network control unit that controls equipment connected to said ATM network and a congestion state of said ATM network; and

a command analyzing section that analyzes commands from said network control unit.

6. (Currently Amended) The ATM edge node switching equipment ~~that is connected to plural user terminals in an ATM network, and is connected to one user terminal with at least one virtual leased line,~~ in accordance with claim 4, ~~wherein:~~

wherein said analyzed result ~~at~~ from said inputted IP data packet analyzing section provides ~~said~~ a determined VPN-ID and ~~said~~ a determined QOS type, and said routing information retrieving section discards said IP data packet when said routing information retrieving section ~~obtains~~ determines the occurrence of some trouble in ~~said~~ an output VC for said IP data packet ~~base~~ based on ~~said~~ an obtained output VC state, and

wherein, ~~in case that~~ if more than one of said plural output VCs ~~exist~~ exists to said destination address, said routing information retrieving section selects a suitable VC based on ~~the~~ a priority and transfers said IP data packet to said destination address through said selected VC.